

Cooper Lighting Solutions Photometric Lab
1121 Highway 74 South
Peachtree City, GA 30269



Scaled data based on original data using
LM-79-2019 Approved Method: Electrical and Photometric Measurements of Solid-
State Lighting Products

Test Report Prepared for
Cooper Lighting Solutions

Brand: CORELITE

Report Number: P938212

Luminaire Tested: SQ4-FB-150U-050D-830-1D-UNV-STD-W-8

Issue Date: 12/17/2024

Test Information

Test Method: LM-79-2019
Report Number: P938212
REPORT IS A COMBINATION OF REPORTS P933645 AND P933786
Test Lab: INNOVATION CENTER
Issue Date: 12/17/2024
Manufacturer: COOPER LIGHTING SOLUTIONS
Product Line: CORELITE
Catalog Number: SQ4-FB-150U-050D-830-1D-UNV-STD-W-8
Description: CORELITE SQ4 SUSPENDED INDIRECT LED LUMINAIRE WITH Batwing Frosted Continuous Roll L
Light Source: -
Ballast/Driver: -

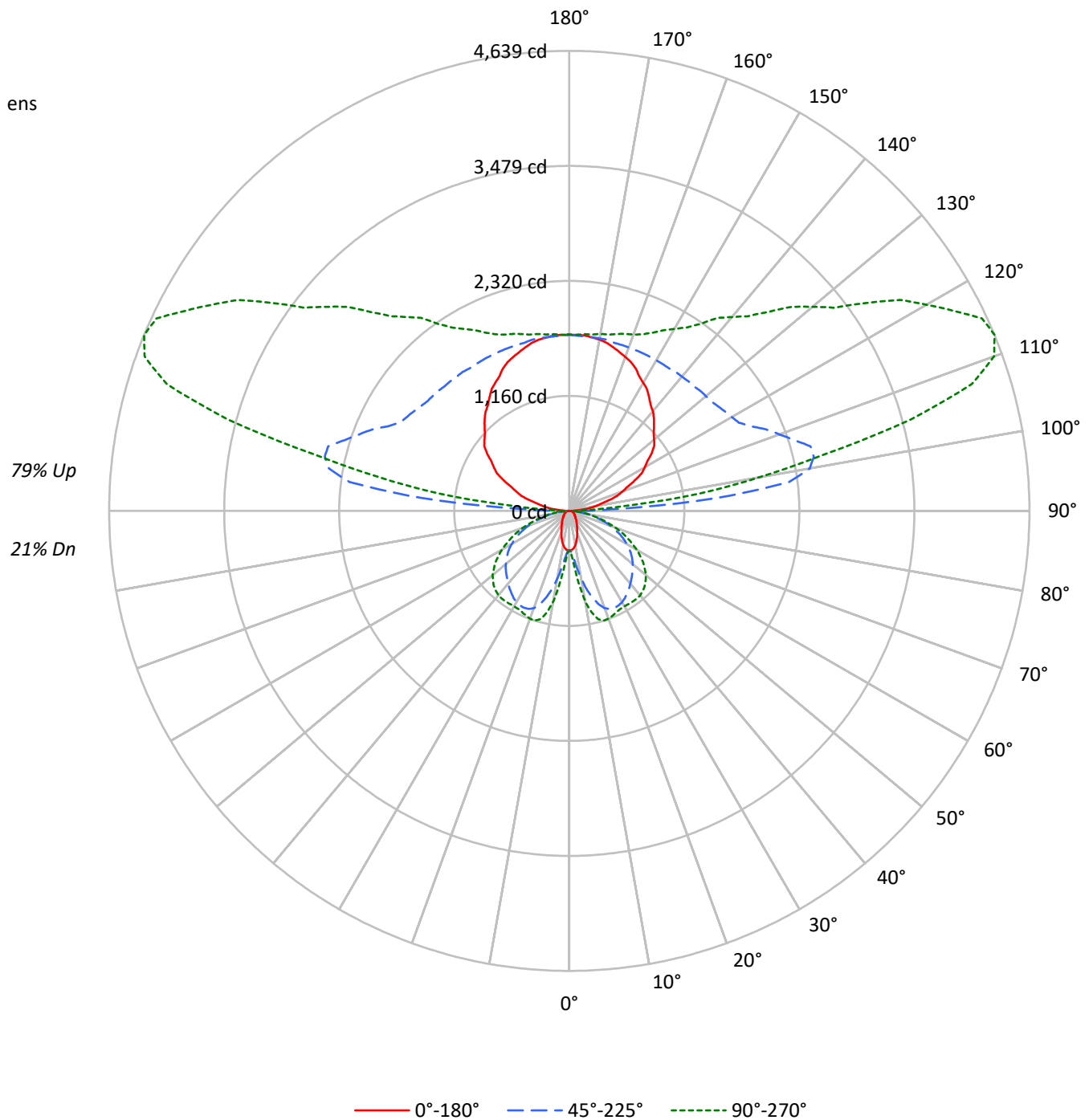
Summary

Lumens per Lamp: N/A
Luminaire Lumens: 14610.6 lumens
Efficiency: N/A
Efficacy: 131.4 lumens/watt
Spacing Criteria (0/90/45): 0.71 / 2.69 / 2.33
Luminous Opening: Rectangular w/ Sides (W: 0.29' x L: 8' x H: 0.1')
CIE Type: Semi-Indirect

Input Watts (W): 111.2
Input Voltage (V): NR
Input Current (Ain): NR
Voltage Rise (V): NR
Power Factor: NR
Total Harmonic Distortion (THDi): NR
Frequency (hertz): 60
Stabilization Time: NR
Operation Time: NR
Ambient Temperature (°C): NR
Test Distance: 24 FT

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Luminous Intensity Polar Plot





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COEFFICIENT OF UTILIZATION - ZONAL CAVITY METHOD:

RF	20				20				20				20				20				20
RC	80				70				50				30				10				0
RW	70	50	30	10	70	50	30	10	50	30	10	50	30	10	50	30	10	50	30	10	0
RCR																					
0	100	100	100	100	89	89	89	89	67	67	67	48	48	48	30	30	30	30	30	30	21
1	91	87	83	80	80	77	74	71	58	56	54	41	40	39	26	25	24	24	24	24	17
2	83	75	70	65	73	67	62	58	51	48	45	36	34	32	22	21	20	20	20	20	14
3	75	66	59	53	66	59	53	48	45	40	37	32	29	27	20	18	17	17	17	17	12
4	69	58	50	45	60	52	45	40	39	35	31	28	25	23	17	16	14	14	14	14	10
5	63	51	44	38	55	46	39	34	35	30	27	25	22	19	15	14	12	12	12	12	8
6	57	46	38	32	51	41	34	29	31	26	23	22	19	17	14	12	11	11	11	11	7
7	53	41	33	28	47	37	30	25	28	23	20	20	17	14	12	11	9	9	9	9	6
8	49	37	30	24	43	33	27	22	25	21	17	18	15	13	11	9	8	8	8	8	5
9	45	34	26	21	40	30	24	19	23	18	15	16	13	11	10	9	7	7	7	7	5
10	42	31	24	19	37	27	21	17	21	17	14	15	12	10	10	8	6	6	6	6	4

AVERAGE LUMINANCE (cd/sqm):

	0°	45°	90°
0°	1850	1850	1850
5°	1807	2138	2487
10°	1639	3117	4123
15°	1394	4073	4979
20°	1134	4720	5074
25°	946	4939	4971
30°	798	4970	4962
35°	705	4888	5090
40°	615	4780	5222
45°	557	4702	5242
50°	511	4631	5156
55°	490	4527	4928
60°	501	4328	4566
65°	522	4026	4071
70°	556	3511	3439
75°	615	2863	2683
80°	674	1986	1808
85°	596	1054	925

MAXIMUM LUMINANCE 45°-90°:

Horizontal Angle: 90°
 Vertical Angle: 45°
 Luminance: 5242 cd/sqm



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ZONAL LUMENS:

Zone	Lumens	% Fixture
0°-10°	51.6	0.4
10°-20°	228.6	1.6
20°-30°	399.9	2.7
30°-40°	514.8	3.5
40°-50°	575.0	3.9
50°-60°	550.7	3.8
60°-70°	436.5	3.0
70°-80°	256.6	1.8
80°-90°	78.1	0.5
90°-100°	866.1	5.9
100°-110°	2277.1	15.6
110°-120°	2361.1	16.2
120°-130°	1893.9	13.0
130°-140°	1486.0	10.2
140°-150°	1140.6	7.8
150°-160°	821.4	5.6
160°-170°	502.6	3.4
170°-180°	169.8	1.2
0°-30°	680.1	4.7
0°-40°	1194.9	8.2
0°-60°	2320.6	15.9
0°-90°	3091.8	21.2
90°-120°	5504.4	37.7
90°-150°	10024.9	68.6
90°-180°	11519.0	78.8
0°-180°	14610.6	100.0

CANDELA DISTRIBUTION:

	0°	22.5°	45°	67.5°	90°	Flux
0°	399	399	399	399	399	
5°	388	417	469	531	550	36
15°	291	537	905	1098	1132	81
25°	186	609	1078	1126	1127	86
35°	126	582	1016	1073	1116	78
45°	86	464	898	1028	1074	66
55°	62	295	762	885	909	56
65°	49	156	566	636	645	48
75°	36	96	310	341	342	38
85°	13	29	77	85	86	14
90°	12	33	91	45	45	11
95°	114	448	1492	769	524	127
105°	410	621	2517	3822	3566	435
115°	729	885	2017	4022	4591	720
125°	1014	1136	1834	3099	3656	900
135°	1208	1330	1777	2502	2837	935
145°	1401	1491	1754	2135	2302	878
155°	1584	1628	1754	1926	1982	728
165°	1709	1732	1754	1823	1846	482
175°	1777	1777	1766	1789	1789	169
180°	1777	1777	1777	1777	1777	



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CANDELA DISTRIBUTION (FULL):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
0°	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7	398.7
2.5°	398.7	398.7	401.3	402.7	405.2	406.5	409.1	411.7	419.3	420.5	423.1
5°	388.5	393.7	410.3	416.7	434.7	459.1	469.3	485.9	520.6	530.9	537.3
7.5°	373.1	384.7	425.7	435.9	480.9	544.9	571.9	607.8	662.9	689.8	711.6
10°	348.7	373.1	446.3	470.6	543.7	641.1	691.2	741.2	824.5	861.6	875.8
12.5°	321.9	361.6	468.1	501.3	606.5	748.8	809.2	864.2	959.2	1009.2	1016.8
15°	291.1	344.9	488.5	537.3	673.2	838.6	905.3	973.2	1061.7	1097.6	1106.6
17.5°	264.1	332.1	507.8	559.1	724.5	919.4	987.4	1043.8	1115.6	1139.9	1146.3
20°	230.8	311.6	520.6	587.3	778.4	978.4	1043.8	1087.4	1136.1	1151.5	1154.1
22.5°	206.4	289.8	528.3	597.5	814.2	1014.3	1069.4	1104.1	1137.4	1142.5	1143.8
25°	185.9	265.4	527.0	609.1	845.0	1036.1	1078.4	1104.1	1123.3	1125.9	1125.9
27.5°	166.7	238.5	521.9	611.6	868.1	1041.2	1074.5	1092.5	1101.5	1106.6	1106.6
30°	150.0	212.9	509.1	606.5	878.4	1036.1	1063.0	1072.0	1080.9	1088.7	1092.5
32.5°	137.2	188.5	489.9	596.3	879.6	1023.2	1042.5	1047.6	1060.4	1078.4	1084.8
35°	125.6	164.1	468.1	582.1	872.0	1002.7	1015.6	1020.7	1046.3	1073.3	1082.2
37.5°	114.1	146.2	439.9	557.8	860.4	978.4	987.4	996.3	1036.1	1068.1	1078.4
40°	102.6	130.8	406.5	530.9	842.4	948.9	956.6	970.7	1023.2	1060.4	1070.7
42.5°	93.6	118.0	370.5	502.7	819.4	915.6	927.1	947.6	1007.9	1047.6	1059.2
45°	85.9	105.2	332.1	464.1	789.8	881.0	897.6	925.8	989.9	1028.4	1038.6
47.5°	78.2	96.2	292.3	424.5	757.8	846.3	868.1	900.2	965.6	1002.7	1011.7
50°	71.8	87.2	252.6	382.1	723.2	809.2	834.8	868.1	934.8	969.4	981.0
52.5°	66.6	79.5	215.4	339.8	683.4	770.6	800.2	834.8	897.6	931.0	938.6
55°	61.6	73.1	183.4	294.9	642.4	729.6	761.6	795.0	856.6	884.8	889.9
57.5°	59.0	68.0	156.4	252.6	598.8	683.4	719.4	750.2	807.8	829.6	834.8
60°	55.2	64.1	135.9	216.7	551.4	639.9	670.6	701.4	750.2	768.1	772.0
62.5°	51.3	61.6	120.6	182.1	502.7	588.6	619.3	647.6	688.6	701.4	706.6
65°	48.8	59.0	109.0	156.4	452.7	534.7	565.5	589.9	623.2	636.0	638.6
67.5°	46.2	56.4	100.0	134.6	402.7	480.9	503.9	527.0	552.7	565.5	566.7
70°	42.4	53.8	92.3	119.2	351.3	419.3	438.5	462.9	483.4	489.9	493.7
72.5°	39.8	50.0	87.2	107.7	298.8	360.3	378.3	392.3	410.3	416.7	416.7
75°	35.9	44.8	82.0	96.2	244.9	294.9	310.3	324.4	338.5	341.1	337.3
77.5°	32.0	39.8	70.6	80.8	191.1	233.4	246.2	253.9	265.4	268.0	269.3
80°	27.0	34.6	55.2	62.8	138.5	171.8	180.8	187.2	197.5	197.5	200.0
82.5°	20.6	27.0	39.8	44.8	93.6	118.0	125.6	129.5	135.9	135.9	135.9
85°	12.8	16.6	25.6	29.4	56.4	71.8	77.0	78.2	83.4	84.6	84.6
87.5°	6.4	9.0	16.6	18.0	29.4	37.2	37.2	39.8	39.8	38.4	37.2
90°	12.0	21.5	31.0	33.4	52.5	77.9	90.6	80.6	60.4	45.3	45.3
92.5°	47.7	128.8	209.9	230.2	323.6	448.2	510.4	447.3	321.2	226.6	217.6
95°	114.5	262.9	411.3	448.4	796.2	1259.9	1491.8	1331.2	1010.1	769.2	741.9
97.5°	198.0	328.9	459.8	492.5	1072.5	1845.8	2232.5	2130.9	1928.0	1775.7	1723.8
100°	262.3	381.1	499.8	529.5	1173.1	2031.1	2460.2	2467.6	2482.4	2493.5	2431.7
102.5°	317.2	428.0	538.7	566.4	1219.2	2089.4	2524.6	2654.0	2912.5	3106.5	3053.6
105°	410.2	504.0	597.9	621.3	1253.3	2096.0	2517.4	2807.4	3387.2	3822.1	3793.6
107.5°	505.6	593.1	680.5	702.4	1259.7	2002.8	2374.3	2778.7	3587.6	4194.2	4201.0
110°	570.1	649.0	728.0	747.7	1250.2	1920.1	2255.1	2707.2	3611.4	4289.6	4319.2



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CANDELA DISTRIBUTION (continued):

	0°	10°	20°	22.5°	30°	40°	45°	50°	60°	67.5°	70°
112.5°	633.3	708.5	783.7	802.6	1250.5	1847.9	2146.5	2609.2	3534.6	4228.7	4274.3
115°	728.7	798.1	867.5	884.9	1262.1	1765.1	2016.6	2462.3	3353.7	4022.4	4085.6
117.5°	822.8	885.9	949.0	964.8	1285.5	1713.2	1927.1	2329.4	3134.0	3737.4	3807.5
120°	877.7	937.1	996.4	1011.3	1304.7	1695.8	1891.4	2258.9	2994.1	3545.4	3613.5
122.5°	931.3	991.3	1051.1	1066.1	1332.1	1686.7	1863.9	2194.9	2856.9	3353.4	3420.6
125°	1013.6	1068.2	1122.8	1136.5	1369.0	1679.0	1834.1	2115.2	2677.6	3099.4	3161.2
127.5°	1080.5	1135.5	1190.7	1204.5	1406.0	1674.7	1809.0	2050.4	2533.3	2895.4	2947.6
130°	1116.2	1175.6	1235.0	1249.8	1433.0	1677.3	1799.5	2014.4	2444.3	2766.7	2814.9
132.5°	1153.2	1212.6	1272.0	1286.8	1454.9	1679.1	1791.2	1983.5	2368.3	2656.9	2700.1
135°	1208.0	1262.1	1316.2	1329.7	1478.7	1677.5	1776.8	1938.0	2260.3	2501.9	2539.1
137.5°	1264.1	1317.7	1371.1	1384.5	1514.5	1687.8	1774.5	1910.8	2183.1	2387.4	2417.9
140°	1310.6	1359.9	1409.1	1421.5	1536.4	1689.5	1766.1	1883.8	2119.2	2295.6	2324.1
142.5°	1346.3	1391.9	1437.5	1448.9	1554.6	1695.7	1766.1	1869.5	2076.1	2231.2	2255.7
145°	1401.2	1441.0	1480.7	1490.7	1578.5	1695.7	1754.2	1838.7	2007.8	2134.7	2153.2
147.5°	1456.1	1494.8	1533.5	1543.2	1613.5	1707.3	1754.2	1820.7	1953.7	2053.5	2068.9
150°	1491.8	1526.8	1561.8	1570.5	1631.7	1713.3	1754.2	1810.4	1922.7	2007.0	2019.5
152.5°	1528.8	1555.3	1581.9	1588.5	1643.7	1717.4	1754.2	1802.2	1898.0	1970.0	1979.4
155°	1583.7	1603.3	1622.9	1627.8	1669.9	1726.1	1754.2	1792.3	1868.7	1926.0	1932.2
157.5°	1624.2	1643.4	1662.4	1667.2	1696.1	1734.9	1754.2	1783.9	1843.3	1887.8	1892.2
160°	1651.7	1666.5	1681.3	1685.0	1708.1	1738.8	1754.2	1779.6	1830.5	1868.7	1871.2
162.5°	1679.1	1690.2	1701.4	1704.2	1720.8	1743.1	1754.2	1775.7	1818.6	1850.8	1853.2
165°	1708.8	1718.9	1729.0	1731.5	1739.1	1749.1	1754.2	1769.6	1800.3	1823.4	1825.9
167.5°	1736.3	1741.1	1745.8	1747.1	1753.4	1761.9	1766.1	1776.2	1796.3	1811.4	1812.5
170°	1754.2	1758.9	1763.7	1765.0	1765.3	1765.8	1766.1	1776.2	1796.3	1811.4	1811.4
172.5°	1763.7	1764.8	1765.8	1766.1	1766.1	1766.1	1766.1	1774.0	1789.9	1801.9	1800.9
175°	1776.8	1776.8	1776.8	1776.8	1773.3	1768.5	1766.1	1771.2	1781.2	1788.8	1788.8
177.5°	1776.8	1776.8	1776.8	1776.8	1774.0	1770.3	1768.5	1772.5	1780.5	1786.4	1785.3
180°	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8	1776.8



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CANDELA DISTRIBUTION (continued):

	80°	90°
0°	398.7	398.7
2.5°	425.7	423.1
5°	547.5	550.1
7.5°	737.3	736.0
10°	916.8	928.4
12.5°	1047.6	1050.2
15°	1127.1	1132.3
17.5°	1157.9	1159.1
20°	1159.1	1156.6
22.5°	1145.1	1142.5
25°	1128.4	1127.1
27.5°	1113.0	1114.3
30°	1106.6	1110.5
32.5°	1106.6	1113.0
35°	1109.2	1115.6
37.5°	1107.9	1115.6
40°	1102.7	1111.7
42.5°	1088.7	1095.1
45°	1066.9	1074.5
47.5°	1038.6	1043.8
50°	1002.7	1007.9
52.5°	957.8	959.2
55°	904.0	909.2
57.5°	846.3	847.6
60°	782.2	786.0
62.5°	714.2	714.2
65°	642.4	645.0
67.5°	568.1	574.5
70°	492.4	493.7
72.5°	418.1	418.1
75°	341.1	342.3
77.5°	268.0	268.0
80°	198.8	200.0
82.5°	137.2	139.8
85°	85.9	85.9
87.5°	39.8	35.9
90°	45.3	45.3
92.5°	181.5	145.5
95°	632.7	523.5
97.5°	1515.9	1308.2
100°	2184.2	1936.7
102.5°	2841.5	2629.6
105°	3679.6	3565.7
107.5°	4228.6	4256.1
110°	4437.9	4556.7



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CANDELA DISTRIBUTION (continued):

	80°	90°
112.5°	4456.6	4638.9
115°	4338.4	4591.2
117.5°	4087.9	4368.3
120°	3885.9	4158.3
122.5°	3689.3	3958.0
125°	3408.8	3656.3
127.5°	3156.5	3365.3
130°	3007.9	3200.8
132.5°	2872.9	3045.7
135°	2688.1	2837.0
137.5°	2539.8	2661.7
140°	2438.1	2552.0
142.5°	2353.8	2451.9
145°	2227.4	2301.6
147.5°	2130.4	2191.8
150°	2069.4	2119.2
152.5°	2017.1	2054.7
155°	1957.1	1982.0
157.5°	1909.6	1927.1
160°	1881.3	1891.4
162.5°	1862.7	1872.2
165°	1836.0	1846.0
167.5°	1816.8	1821.0
170°	1811.4	1811.4
172.5°	1797.3	1793.6
175°	1788.8	1788.8
177.5°	1781.0	1776.8
180°	1776.8	1776.8



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CIE UGR TABLE:

Reflectances:											
Ceiling		0.7	0.7	0.5	0.5	0.3	0.7	0.7	0.5	0.5	0.3
Wall		0.5	0.3	0.5	0.3	0.3	0.5	0.3	0.5	0.3	0.3
Reference plane		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Room dimensions		Viewed crosswise					Viewed endwise				
X=2H	Y=2H	0.00	0.23	0.73	1.38	3.01	12.75	13.41	13.91	14.56	16.19
	3H	0.26	0.85	1.43	2.01	3.66	14.57	15.17	15.74	16.33	17.97
	4H	0.54	1.11	1.73	2.27	3.92	15.21	15.77	16.39	16.94	18.58
	6H	0.78	1.31	1.97	2.47	4.13	15.63	16.15	16.82	17.31	18.97
	8H	0.85	1.34	2.04	2.52	4.17	15.74	16.24	16.93	17.42	19.07
	12H	0.86	1.33	2.05	2.50	4.17	15.80	16.27	17.00	17.45	19.12
4H	2H	6.76	7.32	7.95	8.49	10.13	13.00	13.56	14.19	14.72	16.37
	3H	8.31	8.78	9.50	9.97	11.63	15.02	15.50	16.22	16.68	18.34
	4H	8.39	8.83	9.59	10.00	11.68	15.78	16.22	16.98	17.39	19.07
	6H	8.39	8.77	9.59	9.96	11.63	16.31	16.68	17.51	17.88	19.55
	8H	8.36	8.71	9.56	9.90	11.59	16.47	16.81	17.66	18.00	19.69
	12H	8.31	8.63	9.52	9.83	11.52	16.55	16.87	17.76	18.06	19.75
8H	4H	9.82	10.17	11.02	11.36	13.04	15.82	16.17	17.02	17.36	19.05
	6H	10.05	10.34	11.27	11.57	13.25	16.44	16.73	17.66	17.96	19.64
	8H	10.07	10.32	11.29	11.53	13.23	16.66	16.91	17.88	18.12	19.82
	12H	10.03	10.25	11.25	11.45	13.18	16.80	17.02	18.02	18.22	19.95
12H	4H	9.95	10.27	11.17	11.47	13.16	15.77	16.08	16.98	17.28	18.97
	6H	10.31	10.56	11.53	11.77	13.47	16.42	16.68	17.65	17.88	19.58
	8H	10.37	10.59	11.60	11.79	13.53	16.64	16.86	17.87	18.07	19.80